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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/661,753	09/12/2003	John M. Koegler III	200310760-1	8167
22879 7590 01/17/2007 HEWLETT PACKARD COMPANY P O BOX 272400, 3404 E. HARMONY ROAD INTELLECTUAL PROPERTY ADMINISTRATION FORT COLLINS, CO 80527-2400			EXAMINER LAMB, CHRISTOPHER RAY	
			ART UNIT 2627	PAPER NUMBER
			MAIL DATE 01/17/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/661,753	KOEGLER ET AL.	
	Examiner	Art Unit	
	Christopher R. Lamb	2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 December 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12/22/06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. This Office Action is in response to the amendment filed July 25th, 2006. The amendment filed December 18th, 2006, has not been entered: see the separate advisory action regarding this amendment.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-4, 17-19, and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Honda (US 2002/0191517; cited in previous action) in view of Satoh et al. (US 5,119,363; cited in previous action).

Regarding claim 1:

Honda discloses an optical disk (Fig. 1) comprising:

a label region on the optical disk comprising a writeable material (paragraph 30).

Honda does not disclose:

“a plurality of substantially identical disk speed features, located to be readable when writing the label region, to convey disk speed data without use of any other features on the optical disk.”

Satoh discloses:

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a plurality of substantially identical disk speed features (Fig. 8: 20), located to be readable when writing to the disk, to convey disk speed data without use of any other features on the optical disk (column 6, line 55 to column 7, line 5).

It would have been obvious to one of ordinary skill in the art at the time of the invention to include in the disk of Honda a plurality of substantially identical disk speed features, located to be readable when writing the label region, to convey disk speed data without use of any other features on the optical disk, as taught by Satoh.

The motivation would have been to readily synchronize writing to the disk (Satoh: column 1, lines 15-30).

Regarding claim 2:

In Honda in view of Satoh, the label region is on a label side of the optical disk (apparent in Honda Fig. 1).

Regarding claim 3:

In Honda in view of Satoh, the disk speed features are configured to deflect incoming light (Satoh column 5, lines 15-25: this describes an earlier embodiment but is equally applicable to the embodiment of Fig. 8).

Regarding claim 4:

In Honda in view of Satoh the optical disk includes a data side and a label side (Honda paragraph 30).

Regarding claim 17:

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In Honda in view of Satoh the disk speed features are molded (Satoh: column 6, lines 25-35) in a mirror region of the optical disk (the detection method used by Satoh, column 5, lines 15-25, requires a mirror region).

Regarding claim 18:

In Honda in view of Satoh the disk speed features comprise a molded saw tooth to deflect light from a sensor (the plurality of grooves of Satoh, column 6, lines 25-35, comprises a "saw tooth").

Regarding claim 19:

In Honda in view of Satoh, the disk speed features comprise interspersed areas with and without molded pits (Satoh, column 6, lines 25-40; Fig. 9B).

Regarding claim 32:

In Honda in view of Satoh each of the disk speed features is substantially equally spaced from two adjacent others of the disk speed features in an annular ring located at a particular radial position on the disk (apparent from Fig. 8).

4. Claims 5, 7, 8, 10, 12-16, and 20-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Honda in view of Satoh.

Regarding claim 5:

Honda in view of Satoh discloses an optical disk as described in the rejection of claim 1.

Honda in view of Satoh does not disclose "disk angular orientation features different from the disk speed features, located to be readable when writing to the label side, to convey disk angular orientation data."

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Satoh discloses disk angular orientation features different from the disk speed features (Fig. 8: M1 to M8), located to be readable when writing, to convey disk angular orientation data (column 7, lines 5-25: Satoh refers to these as sector index mark, but each sector comprises an angular portion of the disk, as shown in Fig. 8).

It would have been obvious to one of ordinary skill in the art to include in Honda in view of Satoh disk angular orientation features different from the disk speed features, located to be readable when writing to the label side, to convey disk angular orientation data, as further taught by Satoh.

The motivation would have been to reliably and stably detect sector (i.e., angular) starting points, as disclosed by Satoh (column 11, lines 15-30).

Regarding claim 7:

In Honda in view of Satoh, the disk angular orientation features are defined in a mirror region of the label side of the optical disk (Satoh: column 6, lines 35-55; column 5, lines 15-25).

Regarding claim 8:

In Honda in view of Satoh, the disk angular orientation features are molded (Satoh: column 6, lines 35-55; column 5, lines 15-25).

Regarding claim 10:

In Honda in view of Satoh, the disk speed features are molded (Satoh: column 6, lines 25-35).

Regarding claim 12:

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In Honda in view of Satoh, the disk angular orientation features comprise a surface, distinct from the writable material, having markings to indicate disk angular orientation (inherent: Satoh's detection method, shown in, for example, column 5, lines 15-25, requires a distinct surface from the label surface of Honda).

Regarding claim 13:

In Honda in view of Satoh, the marking comprise a molded saw tooth to deflect light from a sensor (Satoh column 6, lines 25-40, and Fig. 9: the groove pattern comprises a "saw tooth.").

Regarding claims 14 and 15:

All elements positively recited have already been discussed with regards to earlier rejections.

Regarding claim 16:

In Honda in view of Satoh the disk speed features and the disk angular orientation features are combined into an annular ring of features to convey the disk speed data and the angular orientation data (apparent from Satoh Fig. 8).

Regarding claims 20-24:

These are a method of making claims corresponding to the optical disk of earlier claims, and are rejected for the same reasons as those claims. All elements positively recited have already been discussed with regards to earlier rejections (note that molded features constitute "optically readable indicia.").

Regarding claim 25:

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In Honda in view of Satoh at least some of the disk angular orientation features are of different sizes (column 6, lines 35-60; Fig. 5A and 5B).

5. Claims 6 and 26-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Honda in view of Satoh.

Regarding claim 6:

Honda in view of Satoh discloses an optical disk as discussed in the rejection of claim 5.

Honda in view of Satoh does not disclose "wherein the disk speed features define a first annular ring and the disk angular orientation features define a second, different annular ring, the rings configured for reading by an encoder." (Instead there is just one ring).

At the time the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to have the features in two annular rings because the Applicant has not disclosed that having two rings provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with a singular annular ring (Applicant admits this in paragraph 28 of the specification).

Therefore it would have been an obvious matter of design choice to modify Honda in view of Satoh to include wherein the disk speed features define a first annular ring and the disk angular orientation features define a second, different annular ring, the rings configured for reading by an encoder.

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Regarding claim 26:

In Honda in view of Satoh the first and second annular rings are disposed at different radial positions on the disk (if there are two, different, annular rings, as per claim 6, this is inherent).

Regarding claim 27:

Honda in view of Satoh discloses an optical disk as disclosed above in the rejection of claim 6.

Honda in view of Satoh does not disclose "wherein the first and the second annular rings are radially adjacent on the disk."

At the time the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to have the annular rings be radially adjacent because the Applicant has not disclosed that adjacent rings provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with annular rings that are not adjacent (Applicant shows this in the embodiment of Fig. 2).

Therefore it would have been an obvious matter of design choice to modify Honda in view of Satoh to include wherein the annular rings are radially adjacent on the disk.

Regarding claim 28:

As "contiguous" can mean "adjacent," this claim is rejected for the same reason as claim 27.

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Regarding claims 29-31:

These claims are similar to the earlier claims and are rejected for the same reasons.

6. Claims 11 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Honda in view of Satoh as applied to claim 5 above, and further in view of Bugner et al. (US 6,109,324; cited in previous action).

Honda in view of Satoh discloses an optical disk as discussed above.

Honda in view of Satoh does not disclose wherein at least one of the disk speed features or the disk angular orientation features are printed.

Bugner discloses wherein a disk angular orientation feature is printed (column 2, line 55 to column 3, line 10). Bugner discloses this allows a secondary image to be printed in alignment with a primary image.

It would have been obvious to one of ordinary skill in the art to include in Honda in view of Satoh wherein at least one of the disk speed features or the disk angular orientation features are printed.

The motivation would have been to print a secondary image in alignment with a primary image, as disclosed by Bugner.

Regarding claim 9:

In Honda in view of Satoh, and further in view of Bugner, the disk angular orientation features comprise markings within the label region.

Response to Arguments

7. Applicant's arguments, filed July 25th, 2007, with respect to claims 1-32 have been considered but are moot in view of the new ground(s) of rejection.

8. Applicant's arguments, filed December 18th, 2006, with respect to claims 1-32 have been considered but are moot because the amendment to which these arguments refer has not been entered.

9. Applicant's request, filed December 18th, 2006, for withdrawal of the finality of the Office Action of October 13th, 2006 has been considered but is moot in view of this new, complete Office Action, which constitutes a final rejection of the claims filed July 25th, 2006.

In more detail:

Applicant has argued that the Examiner did not provide a basis for the rejection of claim 9 in the Office Action of October 13th, 2006. The Examiner listed the claim as rejected, but did not specifically address it in the Action. Applicant then argues that because this Office Action did not provide this basis, it was not complete, and thus the finality of the Office Action must be withdrawn.

However, note that Applicant did not argue that claim 9 was allowable. In fact, Applicant amended the claim (by amending the claim it depends from) in the amendment filed December 18th, 2006. Applicant is thus presumably aware that the claim does not contain any elements that were not explicitly or implicitly discussed with regards to other claims in the Office Action of October 13th, 2006. The reason for the

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rejection of that claim should be apparent from the rejection of the similar claims in the Office Action.

Still, to make the record completely clear, the Examiner has decided to reissue a complete, new, Final Office Action regarding the amendment filed July 25th, 2006. The Applicant gains a new, three month, shortened statutory period for reply as a result: Applicant may then respond by re-submitting their amendment filed December 18th, 2006, or another, as they see fit.

Conclusion

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

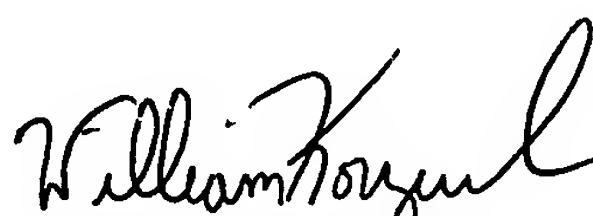
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher R. Lamb whose telephone number is (572) 272-5264. The examiner can normally be reached on 8:30 AM to 6:00 PM Monday to Friday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Korzuch can be reached on (571) 272-7589. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CRL 1/4/07


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